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It's time we talk about time in entrepreneurship¹

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It's Time We Talk About Time in Entrepreneurship

“Time is a created thing. To say ‘I don’t have time,’ is like saying, ‘I don’t want to.’” — Lao Tzu

“Carpe diem, quam minimum credula postero”
“seize the day, put no trust in tomorrow.” — Horace

This editorial draws attention to time to advance entrepreneurship research by focusing on two aspects of time—time perspective and time management. We initiate a deeper conversation on time in entrepreneurship and illustrate the value of a time-based lens for entrepreneurship research through discussing examples at the individual, firm and context levels. These examples consider underdog and portfolio entrepreneurs; well-being; social and unethical entrepreneurial behavior; entrepreneurial teams and entrepreneur-investor dyads; firm strategy; industry and cultural contexts. We review promising methods for time-conscious entrepreneurship research: process, true longitudinal, diary, experience sampling, observational, work-shadowing and time-use studies; historical approaches; experiments; and simulations.

Introduction

What is time? The Chinese philosopher and Roman poet responsible for the above quotes express different facets of time. Consistent with the Merriam-Webster’s dictionary, we define time as *a dimension in which events can be ordered from the past through the present into the future*, and as *the measure of durations of events and the intervals between them*. In this editorial, we illustrate the value of adopting a time-based lens in entrepreneurship research. To do so, we discuss examples of how time matters for a variety of entrepreneurial phenomena—focusing on time perspective and time management—and review methodologies that offer tools for time-conscious entrepreneurship research.

Although time is often implicit in management theories, dedicated research focusing on time is relatively new and slowly emerging (Ancona et al., 2001; Roe et al., 2009). Research streams that have successfully incorporated time and time-based constructs are process research (Langley et al., 2013) and research on change management (Dawson, 2014), well-being (Sonnentag, 2012, 2015), sustainability (Flammer & Bansal, 2017; Slawinski & Bansal, 2015), and innovation (Nadkarni & Chen, 2014). Incorporating time goes along with methodological advances, for instance, in longitudinal and diary research, which sharpen our understanding of how causal processes unfold (Dormann & Griffin, 2015; McCormick et al., 2018). However, time is still largely neglected in entrepreneurship research, with two exceptions: first, calls to view entrepreneurship as a (nonlinear) process (e.g., McMullen & Dimov, 2013; Joglekar & Lévesque, 2013) and the few studies that have done so (Levie &

Lichtenstein, 2010; Lichtenstein et al., 2007); second, related research on family businesses that emphasizes the importance of a long-term orientation as a time perspective prevalent in family businesses (e.g., Lumpkin & Brigham, 2011; Sharma et al., 2013).

Yet, time and time-sensitive processes play a key role in entrepreneurship, from the timing of startup decisions, growth activities, and market entry to the management of entrepreneurs' time, considered their "most valuable and scarcest resource of all" (Zachary et al., 2015: 1402). Technology entrepreneurs, for instance, with vast technical knowledge, cannot trade this for time when they must ready technology for commercialization. Lacking time in early-stage development can also threaten a startup by making it appear less promising than entrepreneurs or investors initially thought and, as a result, it could "die" prematurely. "Yes, money is nice. It can buy you *more* time to get things going, but without investing more time into growth, your business is going to be stuck on a plateau forever" (Locke, 2018). Overall, a lack of time is a threat to entrepreneurs; in particular, it forces them to make significant tradeoffs, including spending time to address recurring crises vs. growing the business (Yoo et al., 2016a).

Moreover, time matters at the micro (individual), meso (firm) and macro (context, e.g., cultural) levels for entrepreneurship. Being attentive to time and its impact on individual entrepreneurs, their firms and their contexts can enable scholars to build a better understanding of the entrepreneurial phenomenon, from individuals selecting an entrepreneurial career to policymakers supporting the formation and growth of new firms. For instance, time draws attention to individuals whose circumstances may focus their time perspective on the present, thus detracting from long-term strategic planning for the future. Looking at time sensitizes us to question when it might be best to add diversity in the venture team, and the consequences of entrepreneurs-investor differences in age, time perspectives and management. Time is also understood differently in different contexts—industries vary in their pace of time and, as a result, the market entry timing and expected time management will shape entrepreneurial opportunities and the nature of entrepreneurship across contexts.

In this editorial, we focus on two salient aspects of time—perspective and management—to inspire research in entrepreneurship at the micro, meso and macro levels. We also explore how time perspective and management relate through experiences of time pressure vs. affluence. We seek to illustrate how taking time seriously in entrepreneurship research provides a deeper understanding of entrepreneurship, one that is rooted in a practice-based view and appreciates the variability and change inherent in entrepreneurial uncertainty. We illustrate how factoring in 'time' can open new vistas for entrepreneurship researchers interested in underdog and portfolio entrepreneurs; well-being; social and unethical entrepreneurial behavior;

entrepreneurial teams; entrepreneur-investor dyads; firm strategy; as well as time's effect in an industry and the socio-cultural context.

Time & Aspects of Time

Time has many aspects, including locus, perception, conception, measurement, and management, to name just a few. Our aim, however, is not to be exclusive or exhaustive with respect to the many aspects of time, nor is it to offer a comprehensive review of the literature relevant to time and entrepreneurship. We propose instead a perspective that focuses on the aspects of time that have been insufficiently explored in entrepreneurship research to date. Our perspective thus complements existing process research in entrepreneurship and time-related research in family business, while at the same time opening new lines of inquiry for research on existing phenomena and theories in entrepreneurship. Moreover, we recognize that most researchers face constraints as they carry out their research and, consequently, our complementary perspective concentrates on research we believe can be reasonably accomplished within these constraints. Prior to presenting such research, we next define the two aspects of time—perspective and management—we deemed needing more consideration, starting with time perspective, followed by time management, and then examining how these aspects are linked to each other through the pace of time (reflected in time pressure vs. time affluence).

Time Perspective

To manage and make sense of our experience of the continuous flow of time and events, we tend to segment it. Time perspectives result from “cognitive processes partitioning human experiences into past, present, and future temporal frames” (Zimbardo & Boyd, 1999: 1271). While individuals, firms, and societies routinely differ in their outlook on, and experience of, time, a range of situations and life circumstances can also make a particular time perspective salient. On the one hand, time perspective has elements of a trait of individuals, firms and societies that impacts the way they typically make decisions related to time and experience emotions related to time (e.g., regrets about the past). On the other hand, time perspective has features of a state whereby circumstances, contexts and crises can substantially alter it.

Building on individual level research on time perspective, we can differentiate five types of time perspectives that can coexist (Zimbardo & Boyd, 1999, 2008). Some individuals are primarily focused on and plan for the future and are willing to delay gratifications to achieve goals in the longer term (future time perspective). Others prefer to enjoy the ‘here and now’ (present-hedonistic time perspective) or they endure the present without being able to influence

it (present-fatalistic time perspective). Still others look to the past because they draw strength from past experiences (past-positive time perspective) or they regret opportunities that they passed up (past-negative time perspective). Future, present-hedonistic and past-positive time perspectives are positively related to outcomes such as individual performance and achievements, well-being and health, risk behaviors, and pro-environmental behaviors (e.g., saving natural resources for future generations), while present-fatalistic and past-negative time perspectives are negatively related to these outcomes (e.g., Zimbardo & Boyd, 1999, 2008 for overviews; Sircova et al., 2014). Hence, an ‘optimal’ balanced time perspective profile shows higher scores on the former and lower scores on the latter time perspectives.

Research on individual time perspectives is more advanced compared to firm- and societal-level research, and it focusses predominantly on future time perspective (also termed long-term orientation). Similarly, entrepreneurship research on individual time perspective has mostly elaborated on future time perspective (related to aging). We believe that differentiating multiple time perspectives and considering knowledge about the circumstances that trigger them—derived from individual-level research—can enrich entrepreneurship research at the individual, firm and societal level, as we will discuss after turning our attention to time management and how it relates to time perspective.

Time Management

Although not aimed at research in entrepreneurship, Aeon and Aguinis’ (2017) time-management review clarifies how managing our time in the professional setting impacts well-being. They define time management as “a form of decision making used by individuals to structure, protect, and adapt their time to changing conditions” (p.311). We embrace the ‘decision making’ aspect, because time-related decision making will be our focus as we bring forward exemplar new research topics on time management and entrepreneurship. However, we propose a broader definition that not only pertains to the individual level, but also to the firm or context level. Specifically, we view time management as *the process of systematically accounting for time, and then allocating time more efficiently among a series of prioritized tasks and activities*. This definition also highlights more directly two crucial dimensions of time management—*time allocation* and, relatedly, *timing*—to be featured in our discussion of exemplar topics.

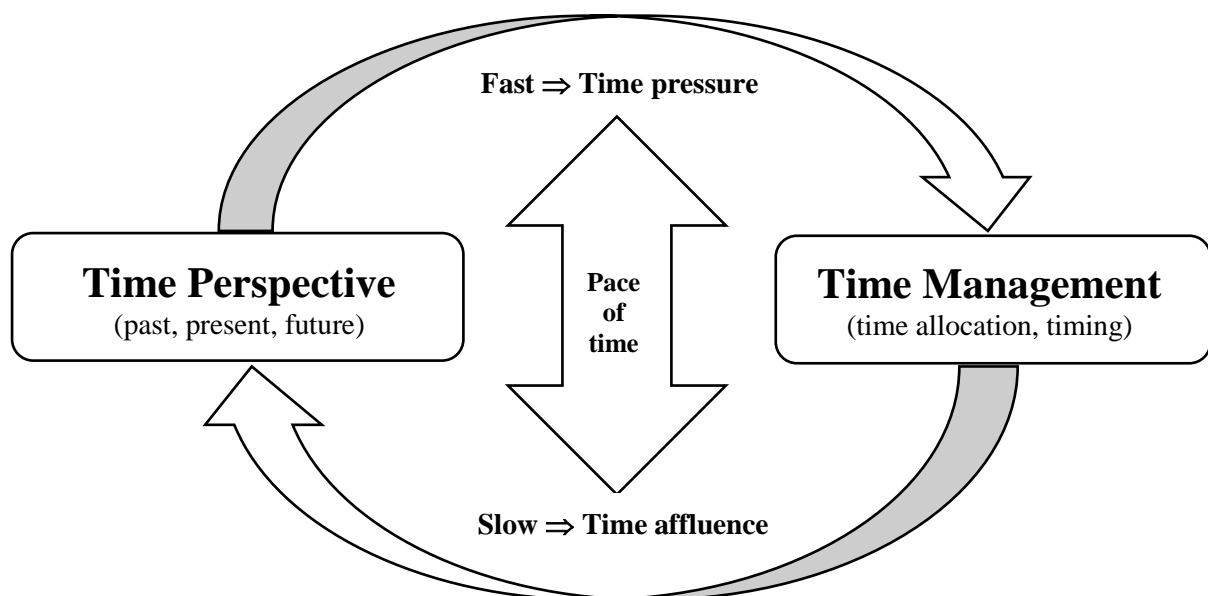
Time management requires self-regulation or self-discipline to establish where time is wasted, to optimize the use of time, to focus on central concerns (long- and short-term), and to learn to delegate responsibilities. Through a more efficient use of time, an individual is

expected to improve her productivity (e.g., from experiencing ‘quiet time’; Perlow, 1999), job satisfaction (e.g., Chang & Nguyen, 2011) and health (e.g., Adams & Jex, 1999). Since firms cannot operate without individuals, time management at the firm level directly depends on individuals’ time management. Moreover, treating employees as a supply of time (Moore, 1963) implies that managing these employees can impact how firms—emerging or existing—can function and reach their goals. And since time as a social construction varies not only across individuals but between societies (Bluedorn & Denhardt, 1988), and individuals form societies, time management at the context level also directly depends on individuals’ time management.

The Pace of Time: Time Pressure vs. Affluence

As we explore the individual, firm and context levels to draw attention to time to advance entrepreneurship research, we are inspired by Aeon and Aguinis (2017) who borrow constructs from sociology and psychology studies to connect time management to time perspective, though only at the individual level. We describe how these two aspects of time relate through experiences of the pace of time (experienced as time pressure vs. time affluence, as portrayed in Figure 1). Below we illustrate with entrepreneurship examples how these relationships may unfold, while the remainder of our editorial will focus on time perspectives and time management.

Figure 1. Aspects of time insufficiently explored in entrepreneurship research



Time perspectives can be primed and are sensitive to the pace of time—the speed with which we live our lives. For instance, observational work documents dramatic differences

around the world in the pace of time (Levine & Norenzayan, 1999). Poor time management often leads to the need to accelerate the pace of time to get more things done within the same period of time, which is typically experienced as time pressure. Time pressure, in turn, can shift time perspectives to the present to deal with tasks that become increasingly urgent, rather than engage in future-oriented planning or reminisce about the past. Certain industry contexts for the firm level, and certain societies for the country level, have been described as faster paced and hence as more time-pressured environments.

Conversely, the experience of decelerated pace of time—a sense of time affluence whereby individuals feel that they have enough time to pursue what they find meaningful—can deemphasize the focus on the present while increasing future time perspective (Kasser & Sheldon, 2009) and possibly also past time perspective. In situations of time affluence, time is not a scarce resource as in situations of time pressure, but available in relative abundance. This abundance of time enables individuals, firms and societies to broaden their perspective beyond the immediate present, thus allowing for better time management. In other words, time management issues can cause time pressure or affluence, which impacts time perspectives and, conversely, time perspectives can cause time pressure or affluence, which in turn impacts time management, as portrayed by the curved arrows in Figure 1.

At the individual level, these connections can be exemplified by considering the benefit of time management for well-being. Effective time management reduces time pressure and enhances time affluence. Time affluence (compared to time pressure) broadens individual's cognitive perspective, reduces negative affective states, and enables individuals to develop a balanced time perspective profile¹, which, as discussed earlier, enhances well-being. Such processes may also play out at a collective level and thus can help advance our understanding of how entrepreneurial action influences the well-being of others (e.g., Shepherd et al., 2019; Stephan, 2018). Entrepreneurs' and entrepreneurial teams' time management and experience of time pressure vs. affluence may cross over to affect the experienced pace of time and time perspectives of their employees and other stakeholders. For instance, ineffective time management by entrepreneurs and their teams likely increases employees' time pressure through shifting and unpredictable demands, which lower employees' well-being and instill a present-fatalistic time perspective along with low future orientation. These employees learn that planning is not useful and that they are not in control of their work schedules, which are

¹ That is, more future oriented, present hedonistic and past positive perspective, less present fatalistic and past negative perspectives.

overridden by urgent requests from entrepreneurs and entrepreneurial teams struggling with time management.

At the firm level, diversity in the entrepreneurial team can be used to exemplify another connection between time perspective and time management. Members of the entrepreneurial team may allocate their time such that it allows the entrepreneur (or some team members) to dedicate part of their work day (a time management decision) on non-crisis tasks such as strategic planning, which requires a future time perspective. Other team members who display a present time perspective can cover for deadlines and crisis management, while those with a future time perspective can focus on non-crisis tasks. In turn, a past-positive time perspective can facilitate learning by enabling entrepreneurs and their teams to look back at what worked, what did not work, and how they can tweak processes. This needed balance of time perspectives in the entrepreneurial team and its consequences on time management can be achieved by creating regular opportunities for time affluence.

At the context level, industry clock-speed reflects the pace of time in industries and describes industry developments based on products, processes and the speed of organizational processes (Nadkarni & Narayanan, 2007); examples of slow clock-speed include pharmaceutical industries, where new products can take a decade or more to develop and, if fortunate, reach the market. If we combine industry pace of time with the ‘right’ timing of market entry (e.g., different times will be suitable in different industries, geographical locations and economic contexts), then when the pace of time is fast, market entry timing is a time management issue that causes time pressures that in turn impact time perspectives. In this situation, market entry timing decisions intensify time pressures inside the firm that is now exposed to, and must keep in step with, a fast-paced industry, which instills a present time perspective rather than a future one.

Time Perspective & Entrepreneurship

We now turn to exemplar new research topics on time perspective and entrepreneurship. Rather than being exclusive or exhaustive, the proposed topics are meant to encourage scholars to engage in what we regard as the most promising and accessible research directions on time perspective. We summarize topics in Table 1 by level of analyses. For each level (i.e., individual, firm, context), we discuss different time perspectives always starting with a future time perspective, which has received most attention in research to date, followed by discussing implications of the more neglected present and past time perspectives.

Table 1. Exemplar new research topics on time perspective and entrepreneurship

	Literature talks about	We know little about
For the individual	<ul style="list-style-type: none"> • Future time perspective diminishing with entrepreneurs' age and relating to goal setting and achievement • Present time perspective enabling detachment from the business and recovery from the daily hustle • Past experiences of social entrepreneurs making them familiar with the social issues they address 	<ul style="list-style-type: none"> • Future time perspective being maintained by entrepreneurs when resource scarcity and uncertainty trigger them to focus on the present • Present time perspective relating to entrepreneurs' well-being and empowering entrepreneurship in challenging contexts • Past time perspective helping to build the legitimacy of the entrepreneur and to develop their resilience
For the firm	<ul style="list-style-type: none"> • Future/long-term time perspective as strategic decision logic linking to non-economic goals and sustainability of the (family) firm 	<ul style="list-style-type: none"> • Maintaining future time perspective and the role of past and balanced time perspectives (past, present and future) for competitive (dis-)advantage
For the context	<ul style="list-style-type: none"> • Future time perspective of a culture linking to economic prosperity and growth (though not studied in the entrepreneurship context) 	<ul style="list-style-type: none"> • Effects of cultural time perspectives on entrepreneurship, and distinct time perspectives facilitating different entrepreneurial behaviors (e.g., growth, sustainability, well-being, unethical)

For the Individual

The *future time perspective* has received attention in research on age and entrepreneurship research, because future time perspective typically diminishes with age, as one's own mortality becomes more salient and 'the future' less expansive (e.g., Gielnik et al., 2018). Yet other known effects of future time perspective, for instance on goal setting and achievement (Zimbardo & Boyd, 2008), have not yet been explored for entrepreneurs. The exception is one study that found a positive correlation between future time perspective and firm growth (Gielnik et al., 2012). However, with resource scarcity and uncertainty often considered hallmarks of the entrepreneurial process, how do entrepreneurs maintain a future time perspective and continue to develop their firm (e.g., draft a marketing plan) when their circumstances (e.g., lack of money) trigger them to focus on coping with the present (e.g., meeting the payroll) instead? Answers may be found in research on decision-making logics such as effectuation (aligned with a present time focus) and causation (aligned with a future time focus). Crisis, resource scarcity and powerful others (e.g., investors) can induce changes in these logics and bring into focus ways to survive in the present (in the case of crisis and resource scarcity) vs. planning for the future (Reymen et al., 2015).

The *present time perspective* has received less attention in entrepreneurship research. This is surprising, because age-related changes in motivation also include an increased focus on the

enjoyable aspects of the present such as social relationships (Carstensen, 2006), which is consistent with a present-hedonistic time perspective. A present time perspective can be a powerful source of meaningfulness (e.g., by focusing on social relationships) and well-being for entrepreneurs. It can impact their self-regulation such that a greater present orientation enables detachment from the firm and recovery from the daily hustle (Weinberger et al., 2018). Moreover, a low-future time orientation paired with a high-hedonistic present orientation is characteristically associated with impulsive behavior and risk-taking (Zimbardo & Boyd, 1999), and consistent with the mechanisms linking entrepreneurship with mental health issues such as ADHD (Wiklund et al., 2018; Thurik et al., 2016).

Present time perspectives may also afford us a new way of understanding and empowering entrepreneurship in challenging contexts, such as the decisions and actions of underdog entrepreneurs (i.e., those who experience challenges in their personal life such as immigrants, war veterans, or those with mental health issues; Miller & LeBreton-Miller, 2017), and in the context of poverty (Sutter et al., 2018). Individuals with low socio-economic status (low income and low education) often hold a low future time perspective as they have learned that ambitious future goals are typically unattainable. Thus, their time perspective is oriented towards coping with the present (Padawer et al., 2007; Guthrie et al., 2009). In the ‘here and now,’ they experience that they have little resources or agency to change their current situation (a present-fatalistic time perspective), which is often built on a string of negative past experiences (past-negative time perspective). Resource-poor contexts and especially the uncertainty individuals experience about their ability to access resources are triggers of fatalistic-present and past-negative time orientations that are associated with poor performance and poor well-being outcomes (e.g., Gore, 2018).

This suggests that empowering entrepreneurs in challenging contexts requires shifting time-perspectives by, for instance, first helping entrepreneurs develop an appreciation of the positive aspects of their present and past. This would include highlighting existing positive experiences, skills, and relationships that they can draw on as strengths, however few there may be. This could eventually help them build a stronger future time perspective as they develop more skills and mobilize further resources. Examples of successful interventions are

proactivity training² (Campos et al., 2017) and the positive deviance approach³ (Pascale et al., 2010). Such interventions do not simply focus on ‘changing’ the individual, but also offer facilitating resources (e.g., credit or mentoring) to help sustain changed time perspectives.

Relatively unexplored in the broader research on time perspectives and entrepreneurship is the role of the past and the *past time perspective*, which can help to build the legitimacy of the entrepreneur and be a source of resilience. Past experiences, both adverse and positive, can be powerful devices to craft legitimizing narratives for (serial) entrepreneurs and their firms, for instance, to attract funding. Similarly, research indicates that at least some social entrepreneurs are familiar with the social issues they address because they themselves have experienced them in the past (e.g., poverty and drug addiction; Stephan & Drencheva, 2017), conferring legitimacy to them. Moreover, negative past experiences (e.g., failed firms for entrepreneurs and social problems for social entrepreneurs) may also be an underestimated source of strength and resilience consistent with a past-positive time perspective. Reflecting on the past in a manner that enables learning through understanding the coping strategies used to overcome negative experiences, could help foster entrepreneurial resilience and offer a new lens for understanding resilience. Research on re-entries by failed entrepreneurs (Jenkins et al., 2014) appears consistent with such a pattern.

For the Firm

Research on *future time perspective* has been conducted under the label of long-term orientation in family business research (Lumpkin & Brigham, 2011; Gentry et al., 2016) and strategic management research (e.g., Ortiz-de-Mandojana et al., 2018; Flammer & Bansal, 2017). Both research streams recognize that firms’ long-term orientation can facilitate more sustainable and higher long-run performance, and that it is aligned with the consideration of noneconomic strategic goals—particularly, social and sustainability issues. This research suggests that a strategic orientation towards future time perspectives may be the hallmark of social entrepreneurship, an aspect the entrepreneurship literature has hitherto not considered.

While hailing the benefits of future time perspective, we also need research to ascertain whether there can also be too much of a strategic focus on the future. When all decisions in a firm are made with a strong future focus, they may not be sufficiently grounded in present time

² Proactivity training support entrepreneurs to adopt a more future-oriented time perspective by developing ambitious goals and plans of how to reach these goals based on an assessment of the entrepreneurs’ current means. Proactivity training can be especially effective when combined with microfinance or loan interventions, which provide the needed resources to facilitate the enactment of plans.

³ The positive deviance approach identifies exemplar positive practices within disadvantaged communities of individuals who all share the same resources. Identifying exemplars means finding strengths in the present, which are then scaled up to the entire community through a specific intervention sequence and support.

realities (see also Le Breton-Miller & Miller, 2011). Elon Musk's ambitious future oriented plans for Tesla seemed to be ignoring practical present-day feasibility leading to the lay-off of 9 and then 7 percent of its workforce in 2018 and early 2019 (Wired, 2019). Given such benefits of future time perspective for both the financial and social performances of the firm, an opportunity for future research lies in exploring situations or events that divert firm's strategic focus away from the future toward the present and *present time perspective*. New firms frequently face critical junctions, crisis points and time pressures, which require a focus on the present. Challenges can be triggered by good employees leaving, suppliers suddenly unable to deliver, or late-paying customers (Lechat & Torrès, 2017). How do new firms maintain a future time perspective in such situations? In turn, diversity in time perspectives among the entrepreneurial team may help to achieve time-balanced decision making and ensure that the firm develops despite crises.

Exploring a *past time perspective* in entrepreneurship research would allow to integrate ideas from business history (e.g., the importance of past artifacts for identity creation, historical trajectories, and path dependences) and open up new perspectives. For instance, firms with rich, long traditions (e.g., the watchmaker crafts industry) often operate in the past time perspective and feel bound by tradition, which can prevent them from adapting to change (Christensen, 2013). Thus, the past time perspective may be a liability for competitive advantage as it can prevent firms from seeing the need for change and can result in lost market shares. However, sticking to tradition can also provide a competitive advantage as customers seek tradition for conspicuous consumption and luxury goods (e.g., Swiss watches). Ultimately, it may be balance across different time perspectives that enables high performance.

For the Context

Cultures differ in their perspectives on time, with no research yet relating these differences to entrepreneurship. However, they can help us better understand why and when entrepreneurial behavior takes different forms across cultures as well as the challenges involved for internationalizing firms. Future orientation (a future time perspective) is a dimension found in several cultural theories (Hofstede, 2001; House et al., 2004; Trompenaars & Hampden-Turner, 1998). Like the individual-level equivalent, it emphasizes a linear understanding of time and a society's practices and support of goal setting and planning, hard work, and delay of gratification to achieve future goals. A culture's future orientation has been linked to economic growth, economic prosperity and support for competitiveness (e.g., Ashkanasy et al., 2004). A strong future orientation may be particularly supportive of growth-oriented entrepreneurship.

Research on the individual and firm level reviewed above suggests a link between *future time perspective* and the endorsement of noneconomic, social goals. We may thus also see more support for social entrepreneurship in future-oriented societies. Considering future orientation can also help us understand challenges of internationalizing firms that work across cultures, for instance, conflicts can arise when one firm operates according to a linear ‘clock-time’ while the other feels bound by ‘event-time’ emphasizing the duration of work and the present rather than future deadlines (Reinecke & Ansari, 2014).

Moreover, several global trends to date imply different time perspectives that may create tensions within societies. Sustainability issues, such as climate change and the world’s growing social inequalities, require an appreciation of the long-term and future-oriented firm strategies that could help alleviate them. Yet, business strategies that contribute to positive social change are also mindful of a *past time perspective*. They assess what strategies to solve a social issue have already been implemented in the past, and leverage learning from both failed and successful attempt going forward (Stephan et al., 2016).

However, trends such as increased connectivity (e.g., via global travel and instant communication via the Internet and mobile phones) and the gig economy contribute to the acceleration and compression of the pace of time (Agypt & Rubin, 2011). As customers, we want goods ‘here and now’ and expect entrepreneurs to cater to this mindset. This increasing emphasis on present-time and diminished focus on future time perspective goes along with time pressure and is likely stressful for entrepreneurs, thus diminishing their well-being and performance. Furthermore, such compressed time perspectives tempt individuals to cut corners and behave unethically (e.g., Kasser & Sheldon, 2009). Consequently, in societies with a strong *present time perspective* (both present hedonistic and present fatalistic), we may see more corruption, unethical and unproductive entrepreneurial behavior.

Time Management & Entrepreneurship

We now turn to new research topics on time management and entrepreneurship. Again, these topics are not meant to be exclusive or exhaustive, rather they invite scholars to pursue what we view as the most promising and accessible research directions. As summarized in Table 2, we discuss dimensions of time management insufficiently explored in entrepreneurship research: *time allocation* across different tasks and demands; and, relatedly, *timing* referring to whether certain activities (that require time) occur earlier or later over a specified time span.

Table 2. Exemplar new research topics on time management and entrepreneurship

	Literature talks about	We know little about
For the individual	<ul style="list-style-type: none"> • Part-time entrepreneurs and entrepreneurs who engage in sequential business ventures 	<ul style="list-style-type: none"> • Portfolio entrepreneurs who simultaneously engage in multiple ventures and the time allocation decisions they face
For the firm	<ul style="list-style-type: none"> • Angel investors favoring entrepreneurs with similar characteristics 	<ul style="list-style-type: none"> • Age diversity in the entrepreneur-investor dyad and its impact on the entrepreneur's time allocation
	<ul style="list-style-type: none"> • Reducing the time social enterprises spent on those most in needs 	<ul style="list-style-type: none"> • Work integration social enterprises and labor time allocation that balances their social and economic missions
	<ul style="list-style-type: none"> • The timing to hire employees and the founding team formation process 	<ul style="list-style-type: none"> • Timing of adding diversity in the founding team
For the context	<ul style="list-style-type: none"> • The 'where' and 'how' of market entry in 'taboo' industries 	<ul style="list-style-type: none"> • The 'when' (i.e., timing) of market entry in 'taboo' industries and their evolutionary trajectories

For the Individual

Many entrepreneurs hold a full-time job while simultaneously developing their new enterprises; this can provide a smoother transition to becoming a fully committed entrepreneur, but it also creates significant time pressures and, consequently, the need to properly manage one's time. Although being a part-time entrepreneur is not a new phenomenon (see, e.g., Lévesque & MacCrimmon, 1997), this practice has mushroomed; scholars refer to it as 'hybrid entrepreneurship' (see Folta et al., 2010, who coined this term). The emergence of the so-called sharing economy and gig economy facilitates this form of entrepreneurship because it enables entrepreneurs to earn a living with a flexible schedule while trying to launch a business. Likewise, portfolio entrepreneurs are simultaneously engaging in more than one new venture (e.g., Westhead et al., 2005).

As they simultaneously engage in multiple new enterprises, portfolio entrepreneurs can transfer their learning and knowhow between these new enterprises, which creates synergy among them. However, this can occur at the expense of the portfolio entrepreneur losing focus on her individual businesses. Having a strong management team in each of these enterprises can greatly reduce (but not eliminate) the need for a startup (co)founder to be present; for instance, Elon Musk might have been seen as an absentee entrepreneur at Zip2, PayPal, Tesla and/or SpaceX, while also focusing on a futuristic transportation project (the hyperloop capsule) and a submarine (for the Wild Boars Football team rescue). Scholars have begun to

investigate multiple-job holders (e.g., Baert et al., 2017; Schulz et al., 2017), but these studies have focused mostly on entrepreneurs who engage in sequential ventures (referred to as serial, habitual or repeat entrepreneurs; e.g., see Pasanen, 2003). Moreover, their focus has not been on time management nor on starting or leading new businesses simultaneously, a phenomenon gaining popularity among newer generations.

Entrepreneurship theory and practice could benefit from a deeper understanding of how portfolio entrepreneurs allocate their time between their new business startups during their work day, week or month, and how this time allocation might affect long-term outcomes not only in terms of financial payoffs as the venture scales up, but also in terms of the entrepreneur's productivity, quality of interpersonal relationships, job satisfaction and overall well-being. Entrepreneurs may not be allocating time most efficiently because they face fewer external restrictions on time. Since they do not hold 9-to-5 jobs, they can choose how, with whom and when to work, and if they do not get something done during the day, their work can spill over into their evenings and then disrupt leisure/family time and their recovery processes (e.g., relaxation, unwinding). To examine how long entrepreneurs can sustain their oversight of multiple businesses requires looking at how entrepreneurs split their limited time between (and within) ventures, along with the longevity and variation of these time allocation decisions.

For the Firm

Age diversity among the entrepreneurial team can play a particularly important role in the entrepreneur-investor dyad (e.g., Sapienza, 1992), since many investors (e.g., formal venture capitalists and especially informal business angels) are often older than the entrepreneurs they invest in. The recent angel investor literature provides fertile ground for time-focused research owing to the vast heterogeneity (and thus cognitive and other differences) among angel investors as compared to venture capitalists (Wallmeroth et al., 2018). Balachandra et al. (2014) demonstrate that angel investors seem to favor entrepreneurs who are similar, likeminded, and coachable. Since investors are likely to be older than entrepreneurs, an age gap may exist, which not only results in dissimilarity between the investor and the investee, but also in potential conflicts between the two parties owing to how young entrepreneurs may elect to manage and allocate their time vs. how their more senior investors view what business activities should be prioritized.

Additionally, young entrepreneurs are likely to see value in building a customer base, getting instant feedback, and building hype for their new offering via social media like Facebook or Twitter, which might be seen by their more senior investors as spending too much

time using these tools rather than focusing on day-to-day business operations. However, given the continued growth of ‘young rich lists,’ as the opportunities for aspiring entrepreneurs to pair up with young investors grow, what can we expect in terms of how young entrepreneurs choose to allocate their time and the consequent social/economic impact on their new enterprises? Moreover, entrepreneurship can help fill projected income shortfalls from shrinking retirement funds, which means that the number of late-career entrepreneurs is expected to grow. How, then, will late-career entrepreneurs choose to allocate their dwindling time when paired up with young investors? Can a smaller age gap benefit each party and society? Entrepreneurship research primarily overlooks the person-environment interactions (Gorgievski & Stephan, 2016) and how age diversity drives these interactions.

Certain organizational forms may also come with inherent time allocation conflicts. One example is social entrepreneurship where organizations address social needs through market-based activities (Mair & Marti, 2006). Social enterprises must navigate and balance their organizational activities to create societal benefit (e.g., by hiring and training ex-prisoners to run cafés, or by microfinancing rural water purification initiatives) with those arising from the need to generate revenue to sustain their social activities (Battilana & Lee, 2014). At the day-to-day level, this entails making decisions about how much time to spend on each set of activities. Research on microfinance organizations illustrates how attempts to increase efficiency has reduced the time and resources that entrepreneurs had spent on assisting very poor clients and increased their focus on making larger loans to comparatively more affluent clients; this tactic was aimed to reduce the time that organizations spent on collecting loan repayments—a form of ‘mission drift’ (Merseland & Strøm, 2010).

Despite the boom in research on social entrepreneurship over the past decade (Saebi et al., 2018), we still know very little about how social enterprises can best make time allocation decisions in their daily operations. Enterprises that directly employ disadvantaged or disabled employees (e.g., work integration social enterprises a.k.a. WISEs) face difficult decisions: what proportion of disadvantaged employees can they sustain as they try to survive and grow to balance their social and economic missions? How many clients from very poor backgrounds can a microfinance organization sustain and still be economically self-sustaining? In other words, how much working time should be allocated to the workers and clients who are ‘less productive’ for the firm, but whose needs more closely represent its mission? Alternatively, what strategies can be devised to align and integrate social and economic activities such that time (and mission) tradeoffs can be avoided? Battilana et al. (2015) and Lensink et al. (2018) offer intriguing examples and insights for WISEs and microfinance organizations, respectively.

Since time management also involves timing, what requires further scholarly scrutiny is the timing of adding diversity to the founding team. Although Yoo et al. (2016b) and Bailey and Tatikonda (2018) investigate the timing to hire employees, scholars have just begun to consider timing related to venture team composition and team expansion as a key decision. At an enterprise's founding, the functional background of team members is often homogenous (e.g., software teams are often comprised mainly of young, white, male computer engineers, many of whom meet at university and hackathons and take the leap into entrepreneurship). Gray (2017) examines the team formation process to explain that enterprise cofounders who identify as entrepreneurs are more likely to embrace teammates with a different functional background when compared to entrepreneurs who identify based on their skills and background (e.g., computer engineer).

Although some venture teams can be advantaged by their homogeneity (e.g., if firm success highly depends on operational efficiency; Knockaert et al., 2011), investigating the timing of diversifying teams (e.g., in age, skill sets, experience, cultural background, sex) is warranted. Programs like 'speed dating' are burgeoning to help entrepreneurs in need of cofounders to find complementary talent, but the timing of when to look for a cofounder is not well understood. Moreover, other personnel timing issues, such as when to fire a cofounder or an employee have received no attention. More generally, studying time allocation (and timing) decisions at the firm level with regards to the firm's strategy helps to explain the varied and nonlinear pace and rhythms of growth, innovation, internationalization and other choices related to competitive advantage.

For the Context

One of the macro-level time paradoxes for entrepreneurs entering new and emerging industries is how to craft sustainable and ethical businesses for the future while thriving in the present. Rich contexts for studying this paradox are 'taboo' industries such as the cannabis industry, the sex-change industry, abortion clinics, in addition to recently facilitated online industries including gambling and pornography. Cannabis sales are now legal in Canada, although cannabis entrepreneurs and investors have been threatened with denied lifetime entry into the United States (BBC, 2018). Characterizing these markets as 'stigmatized,' Slade Shantz et al. (2018) study the *where* and *how* of market entry by identifying firm-entry strategies and proposing market-level factors (e.g., market thickness) that can influence the selected strategy. Extending their work, we can explore what characterizes the entry time—the *when*—within such an industry, along with that industry's evolutionary trajectory. This would also begin to

address Zachary et al.'s (2015) call for considering the *when* (e.g., early/late mover, early/late follower) in combination with the *who* (e.g., buyers, partners), *what* (e.g., product, business model), *where* (e.g., markets, geographies) and the *how* (e.g., needed strategies, resources).

In stigmatized industries, being an early entrant can be risky because waiting for changes in social perceptions and cultural acceptance could take considerable time; waiting until the industry has gained some legitimacy might be wiser. What then characterizes the conditions under which the time of entry is optimal for a new entrant in this context? Importantly, as the industry evolves due to new firm entries, how does its evolutionary trajectory deviate from known trajectories (e.g., the S-shape of Bass Diffusion Model on consumer product adoption patterns; Bass 1969, 2004)? On the one hand, the expected increasing growth rate in the industry's early years might not occur due to early adopters' negative view of the stigmatized product, service or user (e.g., Dioun, 2018). On the other hand, time can attenuate this negative view through evolving social perceptions and attitudes and/or new entrants' entrepreneurial actions to remove the stigma (Davis et al., 2008). Overall, the topic of entry timing in a stigmatized market is significant and timely considering the increasing pressure on enterprises to take socially responsible actions.

Promising Methodologies

Considering the role of time in entrepreneurship research challenges us as researchers to move away from cross-sectional studies and to incorporate 'time' into our research designs. We discuss process, true longitudinal, diary, experience sampling, observational, work-shadowing and time-use studies, as well as historical approaches, experiments and formal modeling/simulations. Rather than trying to be comprehensive, we focus on methodologies that are underutilized or are likely to be less familiar to entrepreneurship researchers.

Process, Longitudinal, Diary, Experience Sampling & Observational Studies

Intuitive methodological fits are *process studies* and *true longitudinal studies*. Process studies explore event histories, often over multiple years and multiple firms, which can offer novel insights into the temporal patterns of new firms' organizing activities (Lichtenstein et al., 2007) or the drivers of how and when effectual and causal decision-making logics are combined (e.g., Reymen et al., 2015). Process research appears to be still underutilized in entrepreneurship research, yet it is rapidly developing in management research (see, e.g., Oxford University Press series on 'Perspectives on Process'). Longitudinal studies are also a natural fit with time-based research. True longitudinal studies, as opposed to lagged studies, measure all variables

at multiple time points (typically at least three) and can account for reverse causality. Conducting such studies calls for researchers to explicate the time periods (e.g., weeks, months, years) over which they expect causal processes to unfold (e.g., Dormann & Griffin, 2015) and to theorize about dynamic processes. Analytical tools such as structural equation modeling and panel regressions are now widely available (e.g., Liu et al., 2016).

Diary studies and *experience sampling studies* have been finding their way into entrepreneurship research to unpack micro-foundational processes (Uy et al., 2010). These studies can be particularly useful to unpack the varied nature of the entrepreneurial experience over time and can offer new perspectives on entrepreneurial phenomena. Weinberger et al. (2018) show through a diary study that entrepreneurs' creativity has more 'state-like' than 'trait-like' characteristics. Thus, rather than considering creativity as a fixed feature of personality, we should turn our eye to recovery processes such as 'a good night's sleep' to support entrepreneurs' creativity. These studies can be complemented with *observational* and *work-shadowing studies* (e.g. Mueller et al., 2012) and *time-use studies* (Gershuny & Fisher, 2014). Such approaches can get us closer to the actual day-to-day time allocation practices and decisions, allowing us to capture an entrepreneur's life as it is lived. In this regard, diary, observational and time-use studies align particularly well with a practice-based theoretical lens (Welter et al., 2017).

Historical Approaches & Experimental Studies

Historical approaches such as *life history calendar studies*, *biographical interviews* and *critical incident techniques* minimize recall biases and can offer unique process-based insights (Axinn et al., 1999; Butterfield et al., 2005) into the past experiences of individual entrepreneurs and their teams. Analyses of archival sources and artifacts combined with interviews have also been successfully used to study firm-level phenomena such as the evolving construction and temporality of organizational identity (Ravasi et al., 2018).

Issues such as time stress and time perspectives have been successfully induced and studied *experimentally* outside of entrepreneurship. Examples are subtle 'clock-speed' manipulations, which alter the speed at which a visible physical clock is operating to induce time stress and a change in time perspectives (Thönes et al., 2018). In *event-recall studies*, participants are instructed to reflect on past or present events to induce a past- or present-positive/-negative time perspective, respectively (Strack et al., 1985). The limited time perspective that is characteristic for older age has been induced by asking participants to focus on a goal in their life for which they feel they have limited time left to achieve (Chaxel et al., 2018). Studies have

also altered near- and distant-future time perspectives by communicating that events will take place, for instance, in two weeks vs. two years (Henderson et al., 2006). Such experiments successfully induce time pressure and time perspectives and lead to (i) physiological, motivational and well-being changes (Strack et al., 1985; Thönes et al., 2018); (ii) shifts in information processing biases (Chaxel et al., 2018); and (iii) adaptations of negotiation tactics (Henderson et al., 2006)—outcomes relevant for, respectively entrepreneurs' (i) well-being, (ii) opportunity evaluation, and (iii) relationships with funders, suppliers and customers.

Formal Modeling & Simulation

Another promising approach to study time and entrepreneurship is *formal modeling/simulation*; however, few entrepreneurship scholars are trained in this approach. We anticipate growth in this approach's popularity due to research teams with varying backgrounds becoming increasingly desirable given the rise in complexity of phenomena to explore in our field. And thanks to today's computing power, assumptions of rationality, static, linearity, path independence, equilibrium, etc., can all be relaxed to more closely represent the continuously evolving processes that characterize entrepreneurship. Agent-based models⁴ have been strongly supported in McKelvey (2004), McMullen and Dimov (2013), and Yang and Chandra (2013) as a method to study entrepreneurship; agent actions in the simulations are being modeled increasingly closer to human actions, thanks to the rise of artificial intelligence and, more specifically, machine learning developments (e.g., Francès et al., 2015). Simulation offer a uniquely promising avenue to build or refine theories about intervening processes and boundary conditions in management and entrepreneurship (for exemplar entrepreneurship studies see Keyhani & Lévesque, 2016; Keyhani et al., 2015; Gray et al., 2017; van Burg and van Oorschot, 2013). We note, however, that simulation cannot be used to test theory. Rather, simulation can unearth settings where the theory under investigation might be violated, and thus delineate the applicability of a theory.

Since formal modeling draws from theoretical and empirical studies to identify underlying relationships, it builds from accumulated knowledge. It also enables the study of future events that can inform theory and practice today, rather than solely relying on data to understand what has already happened, thus providing an informative complement to empirical work. Formal modeling also is necessary when the studied phenomenon is of longitudinal nature, yet empirical data cannot be obtained (Davis et al., 2007); this is important given the challenge of

⁴ Agent-based modeling brings the researcher's focus to macro-level phenomena, which surface from the behaviors of multiple interacting heterogeneous agents at the micro-level.

gathering data to study entrepreneurial processes (McMullen & Dimov, 2013). Formal modeling can facilitate generality and flexibility to settle inconsistencies between literature streams, or between theory and practice. It can also explicitly consider the evolution of factors and their dynamic interaction, which play key roles in entrepreneurial decisions or phenomena. And formal modeling can study individuals' decisions (e.g., to become an entrepreneurs), firms' decisions (e.g., to enter a market) or economies' decisions (e.g., to instigate age-based working policies) without the need to wait for them to make these decisions.

Final Thoughts

This editorial sought to illustrate how taking time seriously in entrepreneurship research opens new research avenues. We did so through discussing exemplar new research topics at the intersection of time and entrepreneurship (summarized in Tables 1 and 2) and outlining promising methodologies to study these topics. Studying time in entrepreneurship can unearth new perspectives on a range of issues. Examining tradeoffs in time allocations decisions and unpacking triggers that shift time perspectives can provide a deeper understanding of entrepreneurs' day-to-day practices (Welter et al., 2017). Considering time perspectives and time management—and how they are linked through the pace of time reflected in time pressure vs. affluence—also provides a new approach to understanding the well-being, mental health and resilience of entrepreneurs; and to understand their firms' engagement in social activities, philanthropy and unethical behavior. Considering time can offer potentially new insights into path dependencies, legitimacy and competitive advantage. As well, it affords us a new understanding of context in entrepreneurship by highlighting overlooked cultural and industry differences in time orientation and the pace of time, and by raising new considerations in terms of the timing of market-entry decisions. As time perspective and management may differ between individuals, venture teams and firms, and across contexts, questions can be raised about the optimal entrepreneur-firm-context fit on these two salient aspects of time, and the consequences for individuals and firms from optimizing such a fit or from misfit.

As we move forward to explore time in entrepreneurship, we cannot ignore practice. Lean startup (Eisenmann et al., 2013)—a hypothesis-driven approach to gain information and reduce uncertainty about entrepreneurs' offerings—is gaining in popularity, though scholarly research on this topic remains in its infancy. Time plays a crucial role in this approach because it requires experimentation and iteration to assess whether to change course (i.e., pivot because initial assumptions were not validated) or to maintain the current course. Burchard et al. (2016) also

contrast research with practice to highlight discrepancies on how the choice of securities in venture capital contracting (e.g., common vs. preferred equity), combined with cashflow and control rights provisions, alter the entrepreneur's and investor's effort level and venture outcome. In designing contracts, they highlight the importance of considering the venture's lifecycle stages and how the venture develops over time. Shevchenko et al. (2016) highlight instead the discrepancy between theory and practice in firms' efforts to become truly sustainable, while arguing that even if the need to change is clear, for numerous firms the "path forward will be unclear; these firms will need to go beyond integrating new technologies and practices by taking entrepreneurial actions that radically alter everything they do" (p. 923). These entrepreneurial actions and their impacts on firms' ability to become truly sustainable open not only new avenues for entrepreneurship research, where time plays a key role, but understanding this can also benefit caring entrepreneurs.

Uncertainty is typically seen as a cornerstone of entrepreneurship (McMullen & Shepherd, 2006) and it implies variability and change, and time-sensitive processes (McMullen & Dimov, 2013). Yet, entrepreneurship research often aggregates away such variability by looking at averages across individuals, firms and contexts (Stephan, 2018); or it 'slices' time by investigating only a particular point in time (e.g., assuming that there are distinct pre- and post-firm growth phases when in fact growth may be an iterative and recursive process; McMullen & Dimov, 2013; Joglekar & Lévesque, 2013). We believe that our understanding of entrepreneurship can be significantly advanced if we move beyond a static view, and instead adopt a dynamic view that takes seriously time's various facets. Such a view requires entrepreneurship researchers to consider the variability of constructs over time, among other things. Put differently, the nature of the relationship between a dependent variable and independent variable can be contested based on the point in time at which the relationship is observed, but such disagreement can be avoided when looking instead at the evolution of this relationship over time. Entrepreneurship is a process, a road, a path, a career ..., and regardless of how one views entrepreneurship, it always involves the notion of time. It is therefore time we talk about time in entrepreneurship. To enable this conversation, we have outlined examples of how time matters for a range of entrepreneurial phenomena and reviewed methodologies that provide tools for time-conscious entrepreneurship research.

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